



Smart Panchayats: Transforming Rural Governance

India's villages are gradually entering the digital age. From online financial management to drone-based property mapping and digital records of Gram Sabha meetings, technology is beginning to transform the way rural governance functions. At the centre of this transformation are Panchayati Raj Institutions, which serve as the closest link between the government and rural citizens. With over 2.68 lakh Gram Panchayats across the country, these local bodies play a crucial role in planning development, implementing welfare programmes, and delivering basic services. Digital initiatives such as eGramSwaraj, SVAMITVA, and BharatNet are now helping Panchayats become more transparent, efficient, and responsive to the needs of rural communities.

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The rapid growth of information and communication technology has transformed the way governments function across the world. In India, digital technology is increasingly being used not only in cities but also in rural areas to improve

governance and public service delivery. Panchayati Raj Institutions (PRIs), which form the foundation of local self-governance in rural India, are gradually adopting digital tools and platforms. These changes are leading to the emergence of what are often referred to as "Smart Panchayats."

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Smart Panchayats use digital technologies to improve transparency, efficiency, accountability, and citizen participation in local governance. India has around 2.68 lakh Gram Panchayats, which serve as the closest administrative units to rural citizens. These institutions are responsible for delivering essential services such as sanitation, drinking water supply, local infrastructure, implementation of welfare schemes, and village development planning.

For decades, many of these services were managed through manual records and paper-based systems. While these traditional methods helped Panchayats function, they also created challenges such as delays, lack of transparency, and difficulties in monitoring public funds and projects. Digital transformation has begun to address these issues and is gradually reshaping the functioning of Panchayats.

Smart Panchayats in Rural India

The Government of India has recognised that strengthening local governance is essential for inclusive rural development. As the country moves towards the vision of India @2047, Panchayats are expected to become more responsive, efficient, and citizen-centric institutions. Digital technology is playing a major role in this transformation by helping Panchayats manage planning, finances, and public services in a more systematic and transparent manner.

As noted in recent discussions on rural governance, technology has the potential to transform villages by improving communication, access to information, and administrative efficiency. One of the most important developments in this direction has been the introduction of various e-governance platforms designed specifically for Panchayati Raj Institutions. These platforms allow Panchayats to maintain digital records, track development projects, manage finances, and provide information to citizens. Among these initiatives, the **eGramSwaraj** portal has emerged as a central platform for digital governance in Panchayats. The portal enables Panchayats to prepare and upload their development plans, maintain financial accounts, monitor ongoing projects, and generate reports related to village development activities.

Recent Initiatives

The **eGramSwaraj** platform is also linked with the Public Financial Management System (PFMS), enabling

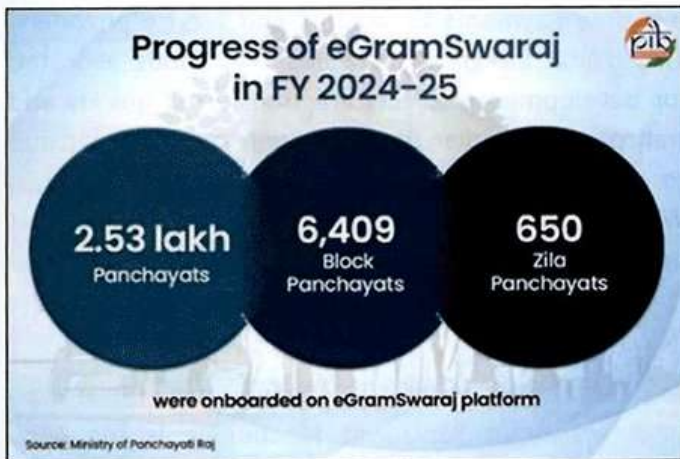
real-time payments to vendors and service providers. This digital integration ensures that funds allocated for development projects are transferred quickly and transparently. Earlier, payments were often delayed due to manual processes and administrative procedures. With digital systems in place, payments can now be processed more efficiently, reducing opportunities for corruption and improving financial accountability at the local level.

Another important initiative that promotes transparency in Panchayat functioning is the **Meri Panchayat** mobile application. This application allows citizens to access key information about their Panchayat directly through their smartphones. Through the app, villagers can view details such as Panchayat budgets, development plans, infrastructure projects, and information about elected representatives. Such transparency empowers citizens by providing access to information that was previously difficult to obtain and helps strengthen trust between local governments and rural communities.

Digital technology has also improved the functioning of Gram Sabha meetings, which are an important component of participatory democracy in rural India. These meetings allow villagers to discuss development issues, approve plans, and monitor the functioning of Panchayats. Traditionally, recording and maintaining the minutes of these meetings required manual documentation, which could sometimes lead to errors or incomplete records.

To address this challenge, the Ministry of Panchayati Raj introduced **SabhaSaar**, an artificial intelligence based tool that automatically records and summarises Gram Sabha proceedings. The system converts speech into written text and generates structured meeting summaries. By February 2026, 1,15,115 Gram Panchayats had already used this tool to generate meeting records. The use of such digital tools ensures that discussions and decisions made during Gram Sabha meetings are properly documented and easily accessible for future reference.

Data on the adoption of the **SabhaSaar** platform shows considerable variation across states. Some states, such as Tamil Nadu (99.75%), Odisha (99.37%), and Tripura (90.95%), have achieved very high levels of adoption, indicating strong integration of digital tools in Gram Sabha proceedings. Several others, including



Jharkhand (79.82%), Bihar (79.28%), and Chhattisgarh (75.84%), have also made notable progress. In contrast, adoption remains relatively low in states such as West Bengal (1.86%), Assam (1.01%), and Manipur (0.88%). Overall, by February 2026, around 1.15 lakh Gram Panchayats out of 2.68 lakh had generated Gram Sabha records through *SabhaSaar*, reflecting about 43 percent national adoption.

Another major digital reform that has transformed rural governance is the **SVAMITVA** scheme, which uses modern technologies such as drones to map village properties. For many years, land ownership records in rural areas were often unclear or disputed, leading to conflicts among villagers. Under the **SVAMITVA** scheme, drone surveys are conducted to accurately map residential properties in villages. Based on this mapping, villagers receive official property cards confirming their ownership rights.

This initiative offers several benefits. First, it helps reduce land disputes by providing clear records of property ownership. Second, it enables rural households to use their property as an asset to obtain bank loans. Third, it helps Gram Panchayats improve property tax collection and plan village development more effectively. The scheme therefore not only strengthens governance but also contributes to economic empowerment in rural communities.

Digital planning tools are also helping Panchayats design more effective development projects. One such tool is **Gram Manchitra**, a geographic information system (GIS)-based application that enables Panchayats to prepare development plans using digital maps. Through this platform, local authorities can identify suitable locations for infrastructure projects such as roads, schools, water supply systems, and health centres.

By using accurate geographical data, Panchayats can ensure that development projects are planned more efficiently and implemented with greater precision.

Connectivity is another key factor supporting digital governance in rural areas. Without reliable internet access, digital platforms cannot function effectively. Recognising this need, the Government of India launched the BharatNet project to provide high-speed broadband connectivity to Gram Panchayats across the country. The project aims to bridge the digital divide between rural and urban areas by ensuring that villages have access to reliable internet services.

Through BharatNet, broadband connectivity is being delivered through fibre-optic networks, Wi-Fi hotspots, and fibre-to-the-home connections. These networks enable villagers to access a wide range of services, including online education, telemedicine, e-commerce, and digital government services. For Panchayats, reliable internet connectivity enables the use of digital platforms for planning, monitoring, and delivering public services.

The **PM-WANI** (Prime Minister's Wi-Fi Access Network Interface) initiative has further strengthened rural connectivity by enabling public Wi-Fi hotspots in villages. These hotspots allow villagers to access the internet at affordable rates and participate in digital activities. Reliable internet access is particularly important for farmers, students, and entrepreneurs who depend on digital information and services in their daily lives.

Digital transformation is also improving financial transparency in Panchayats. The **AuditOnline** portal, for example, enables government authorities to conduct online audits of Panchayat accounts. This platform helps track how funds are utilised and ensures that financial records are maintained accurately. By making financial information more accessible and verifiable, digital auditing systems help reduce the misuse of funds and strengthen accountability.

Another digital platform, **Panchayat NIRNAY**, supports the management and monitoring of Gram Sabha meetings. The portal allows Panchayats to schedule meetings, inform villagers about meeting agendas, and record decisions taken during discussions. By digitising these processes, the system ensures that Gram Sabha meetings are conducted in a more organised and transparent manner.

Digital governance has also improved communication between Panchayats and citizens. Through mobile applications and online portals, villagers can now access government information more easily than before. For example, farmers can receive updates on agricultural schemes, weather forecasts, and market prices through digital platforms. Similarly, beneficiaries of welfare programmes can track the status of their applications and payments online.

Smart Panchayats – Strengthening Democracy

The growing use of digital technology is encouraging greater citizen participation in rural governance. When information about development plans, budgets, and projects is readily available, villagers become more aware of how their Panchayats function. This awareness encourages them to participate more actively in Gram Sabha meetings and community decision-making processes. As a result, digital tools are helping strengthen democratic participation at the grassroots level. Despite these positive developments, the process of digital transformation in rural governance still faces several challenges.

Impending Challenges

One major hurdle is poor internet connectivity in some remote villages. Although internet infrastructure has improved significantly, certain rural areas still experience slow or unstable connections, limiting the effective use of digital platforms. A low level of digital literacy is another challenge faced by the rural population. Many villagers, particularly elderly people, may not be familiar with smartphones or

online platforms. This often creates dependence on intermediaries such as Common Service Centres for accessing digital services. Improving digital literacy through training and awareness programmes is therefore essential for the success of Smart Panchayats.

Language barriers also affect the use of digital platforms. Many online services are available only in English or in a limited number of languages, which may not be easily understood by rural citizens. Expanding digital services in regional languages can help address this issue and make technology more accessible to villagers.

In addition, the affordability of digital devices such as smartphones and computers remains a concern for low-income households. Although the cost of technology has declined over time, many rural families still find it difficult to purchase and maintain digital devices. Addressing these economic barriers is necessary to ensure inclusive digital governance.

Gender disparities also influence access to digital technology in rural areas. In some communities, women have limited access to smartphones and digital education. Promoting digital inclusion for women through training programmes and awareness campaigns can help ensure that the benefits of digital governance reach all sections of society.

Conclusion

The concept of Smart Panchayats represents an important step in the evolution of rural governance in India. Through the use of digital platforms, mobile applications, and advanced technologies such as artificial intelligence and geographic information systems, Panchayats are becoming more transparent, efficient, and responsive to the needs of citizens. Initiatives such as eGramSwaraj, SVAMITVA, BharatNet, Meri Panchayat, and Gram Manchitra demonstrate how technology can strengthen local governance and improve service delivery at the grassroots level.

At the same time, challenges such as digital literacy, connectivity gaps, and affordability must be addressed to ensure that digital transformation benefits all rural communities. If these challenges are effectively managed, Smart Panchayats have the potential to play a crucial role in building a more participatory, accountable, and digitally empowered system of rural governance in India. □

